

ABSTRACT OF THE DISCLOSURE

A clamping mechanism for a clamping unit of an injection molding machine includes a drive unit which moves a first platen linearly relative to a fixed second platen and is linked to the first platen for limited movement. A force-application unit builds up a clamping force, when the first platen assumes a closing position. Disposed between the force application unit and the first platen is a locking device which transmits the clamping force and includes a screw mechanism which operates in synchronism with the drive unit and has a screw shaft and a locking nut constructed to normally connect with clearance to the screw shaft via a thread connection and to interact with the screw shaft for transmitting a load, when the clamping force is applied, whereby the threaded connection is forced to self-lock to secure the locking nut on the screw shaft and prevent reverse rotation of the locking nut.